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NEWS

FROM YOUR MUSEUM

THE ROYAL ONTARIO MUSEUM

Know your Museum better

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MUSEUM HOST TO WARRIORS

The Royal Ontario Museum provides the setting for an interesting experiment in church union and friendly service to troops in training on Sunday afternoons. Six religious denominations are co-operating in this project. What better place for such an experiment! The Museum caters to no creed. Rather, it teaches a fair and thoughtful approach to all ways of life.

The hospitality offered consists of special entertainment arranged by the Church Friendship League for men and women in uniform. On Sunday afternoons hundreds of these visitors assemble at the Museum. A reception committee welcomes them, and invites them to a lounge where they may smoke and have light refreshments. Informal gallery talks are given by members of the Museum staff.

A glance at the guest book indicates the international character of these gatherings—Australia, the United States, Norway, Ireland, the British Isles, and every province in Canada. Your Museum is host to the United Nations.

HOW OLD IS THE EARTH

Most Canadians are familiar with the seemingly endless expanse of rock which spreads across our northland. Geologists refer to it as the "Canadian Shield." But few people are aware that the rocks which make up this "shield" are among the oldest on earth. To know their age is next to knowing the age of the earth.

We have put the question, "How old is the earth?" to Dr. E. S. Moore of the Royal Ontario Museum.

"To determine that a particular rock formation is older or younger than some other rock formation is not difficult but to determine the absolute age of a particular formation is difficult. Many methods whereby we can estimate geological time have been suggested," said Dr. Moore. "For example, we can make estimates on the basis of the time required for streams to carry to the sea all the salts found there. We can measure time by the rate that streams cut their canyons, or by the rate at which land areas are reduced through erosion. The application of these methods, in an attempt to arrive at the age of the earth, gives very indefinite results because there has been no uniformity of rate in the working of these processes."

"The best method for estimating the age of the earth," continued Dr. Moore, "is based on atomic disintegration of radio-active substances in rocks. The rate at which such substances break up into several elements, such as helium, lead and thorium, is constant and has been determined. Therefore, by very delicate methods, the quantity of these elements, set free by the breaking down of radio-active substances, is determined and the age of the rocks can be fixed."

"Applying this method to rocks of the Canadian Shield, geologists consider that the oldest ones are about two billion years old. Some think that probably a billion years had passed from the time our globe first began to take shape until the oldest rocks were formed. Add one billion to two billion and you have three billion—the estimated age of the earth," concluded Dr. Moore.

MICA FOR MUNITIONS

Before the war, Canada worried very little about producing mica. A little was mined in this country, but India, Madagascar and Ceylon supplied most of Canada's needs. Then, the source of supply was cut off, and we looked to our own rocks for this urgent war material.

Justin Purdy stumbled on a large crystal of mica in the bush near the village of Eau Claire, Ontario, late in 1941. He and some friends decided to mine it. They received the phenomenal sum of $13,000 for the mica which came from one ten foot hole. This discovery inaugurated a veritable "mica rush" with the staking of dozens of claims surrounding Purdy's property. The Inspiration Mining and Development Company later consolidated several different interests to form the Purdy Mica Mines Limited.

White mica, muscovite, occurs in the rock as "books" varying in size from less than one inch to over six feet across. This find has been invaluable to Canada and the United States. Muscovite, an excellent electrical and heat insulator, is in great demand now for use in all manner of radio parts and in the manufacture of airplane spark plugs. Great quantities of the best kind are needed.

Mattawa, a French-Canadian town about 40 miles east of North Bay, is the grading and shipping centre for the Eau Claire deposits, Canada's chief source of strategic mica. The Royal Ontario Museum has been fortunate in securing a sheet from one of the very large "books" in the district. It is perhaps the largest sheet of mica on display in any museum.

QUIZ PROGRAM: MUSEUM STYLE

Each year the Royal Ontario Museum conducts a special quiz program. No prizes are offered yet a large number of "players" take part. Throughout Ontario, and beyond, trappers, game-wardens, foresters, fur traders and bushmen fill in the Museum's questionnaires which deal with animal abundance. Not only is information sought on fur-bearers, game animals, and certain conspicuous birds, but also on mice and other small creatures. These lesser animals are important as food for the larger animals. They represent stages in the process of turning fodder into fur.

At the museum, the answered questionnaires are classified and filed. The information which they provide is then available for studying the population trends of wildlife. This work will help make possible the wiser utilization and planning of an important but variable crop. The Museum is a storehouse for information as well as specimens.

SEEING IS BELIEVING

At the Royal Ontario Museum there is a feast for the eyes. There are porcelains from China, gigantic totem poles from British Columbia, hugh dinosaurs from Alberta, delicate crinoids from Iowa, pitchblende from the Northwest Territories, meteorites from the heavens, butterflies from the tropics and caribou from the Arctic. This is just a sample of the many objects on view. See the world by visiting your Museum.